

VERMONT



PHYSICIANS 1979

STATE OF VERMONT
DEPARTMENT OF HEALTH
LLOYD F. NOVICK, M.D.
COMMISSIONER

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DIVISION OF PUBLIC HEALTH STATISTICS
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FOREWORD

"Physicians in Vermont" is a compendium of statistics describing the demography and activity of practitioners of medicine in Vermont, including both allopathic and osteopathic physicians. This report is the product of cooperation between the medical professions, the medical societies, the Board of Medical Practice, and the Vermont Department of Health. Funding was provided by the National Center for Health Statistics under contract HRA 233-79-2061.

Physicians were chosen as the subject of the first major report on health manpower produced by the Health Department because we felt that within the framework of all health care, physician data would be of the greatest use to the largest number of people.

The report consists of an introduction, followed by four sections describing medical doctors and concludes with a section on doctors of osteopathy. The four sections provide information on the demographics, activities, specialization, and geographic distributions of Vermont medical doctors. The section about doctors of osteopathy does not go into the same detail as the sections on medical doctors since, due to the small numbers of osteopaths in Vermont, it is difficult to avoid presenting detailed information without identifying individual practitioners.

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INTRODUCTION

The 1979 survey of physicians was conducted by the Vermont Department of Health in cooperation with the Vermont Board of Medical Practice. The survey encompasses the 2,387 physicians licensed by the state of Vermont. Questionnaires (see Appendix A) were enclosed with the license renewal packages and mailed in December 1978. Completion of the form was entirely optional and at the individual physician's discretion. Completed forms were received by the Licensing Division of the Secretary of State's office and forwarded to the Health Department where they were visually edited, encoded, and keyed. The information was then computerized and further edited for consistency and accuracy (see Appendix B).

Of the 2,387 physician, 2,194 responded to the survey (92 percent). The 193 non-respondents included 71 physicians with a Vermont mailing address. Unless otherwise specified, all data presented in this report are based only on those responding, with no attempt to extrapolate data for the physician population as a whole.

Physicians who neither lived nor worked in Vermont, and who were licensed in their home state were asked to provide only that information necessary to eliminate duplication of records at the national level. Additional data was gathered on those physicians outside Vermont who indicated that Vermont residents for a significant portion (5 percent or more) or their practice. For information on these physicians, see Appendix C.

Table 1 displays the residence and work status of all 2,387 physicians surveyed. The work status and work location of those physicians neither living nor working in Vermont was not asked.

Sixty physicians residing in Vermont who are not currently active in medicine responded to the survey. Of these, 48 are retired, 4 are unemployed and seeking work, 4 are disabled and 4 are of other status.

The remainder of this report, unless otherwise specified, concerns the 788 physicians working in Vermont who are not employed by the federal government.

Table 1
Place of Residence by Work Status
M.D.s Licensed in Vermont, 1979

Work Status	Residence				Total
	Vermont	Other State	Foreign	Unknown	
Working VT (non-fed)	765*	21	1	1	788*
Working VT (fed)	18	1	0	1	20
Work Outside VT	40	0	0	0	40
Not Working	60	0	0	0	60
Unknown	5	0	0	0	5
Question Not Asked	0	1,086	189	199	1,474
TOTAL	888	1,108	190	201	2,387#

*Includes 20 with unknown form of employment

#Includes 2,194 respondents and 193 non-respondents

DEMOGRAPHICS

Information describing age, sex distribution, and educational background is particularly useful in predicting future strengths and weaknesses in the medical workforce.

Age distribution is one factor which can be used in estimating the future supply of health manpower. Figure 1 displays the age composition of the currently active physicians in Vermont. The distribution compares closely with national patterns. For example, 56 percent of Vermont physicians are under 45, compared with 54 percent nationally¹. In Vermont, 7 percent of the active physicians are over 65. This compares to the national rate in 1970 of 9 percent. This is a historically typical distribution and seems to indicate no dramatic changes in the immediate future.

Figure 2 shows the distribution of physicians by number of years active in medicine. This data closely parallels the information in Figure 1.

A change in composition which is becoming evident is the gradually increasing portion of female physicians. Nationally, the percentage of active female physicians in the medical workforce has risen from 5.7 percent in 1963 to 8.4 percent in 1976². In Vermont, it has risen from 7.4 percent in 1976 to 8.7 percent in 1979. Figure 3 shows the percentage of female physicians by age. Over 10 percent of the physicians between 30 and 34 and over 15 percent of the physicians under 30 are women. Data from medical schools indicated continuance of this trend. In academic year 1976-77, 23 percent of the University of Vermont medical students were women, and nationally the rate was over 22 percent. This compares with a national rate of 9 percent in 1969-70, and 5.7 percent in 1959-60.

Table 2 displays location of basic medical preparation of Vermont physicians. Over one fourth of physicians active in Vermont are graduates of the University of Vermont College of Medicine. It is interesting to note that of the 1,923 alumni of the University of Vermont currently practicing medicine, 302 (16 percent) are located in Vermont³.

There is historical evidence that Vermont's patterns of health manpower parallel those of the nation as a whole. National projections call for an increase of approximately 2 percent per year in physician availability during the next 10 years. We can predict that in Vermont the number of physicians will increase, and beyond that, the portion of female physicians will further increase as well.

¹U.S. Department of Health, Education and Welfare; Bureau of Health Resources Development, "The Supply of Health Manpower" Washington, 1974, p 26.

²U.S. Department of Health, Education and Welfare; Bureau of Health Resources Development, "Minorities and Women in the Health Fields", Washington, 1978, p 80.

³U.S. Department of Health, Education and Welfare, Bureau of Health Manpower, "Characteristics of Physicians: Vermont", Washington, 1979, p 70.

Figure 1
Number of M.D.s Working in Vermont
by Age and Sex, 1979

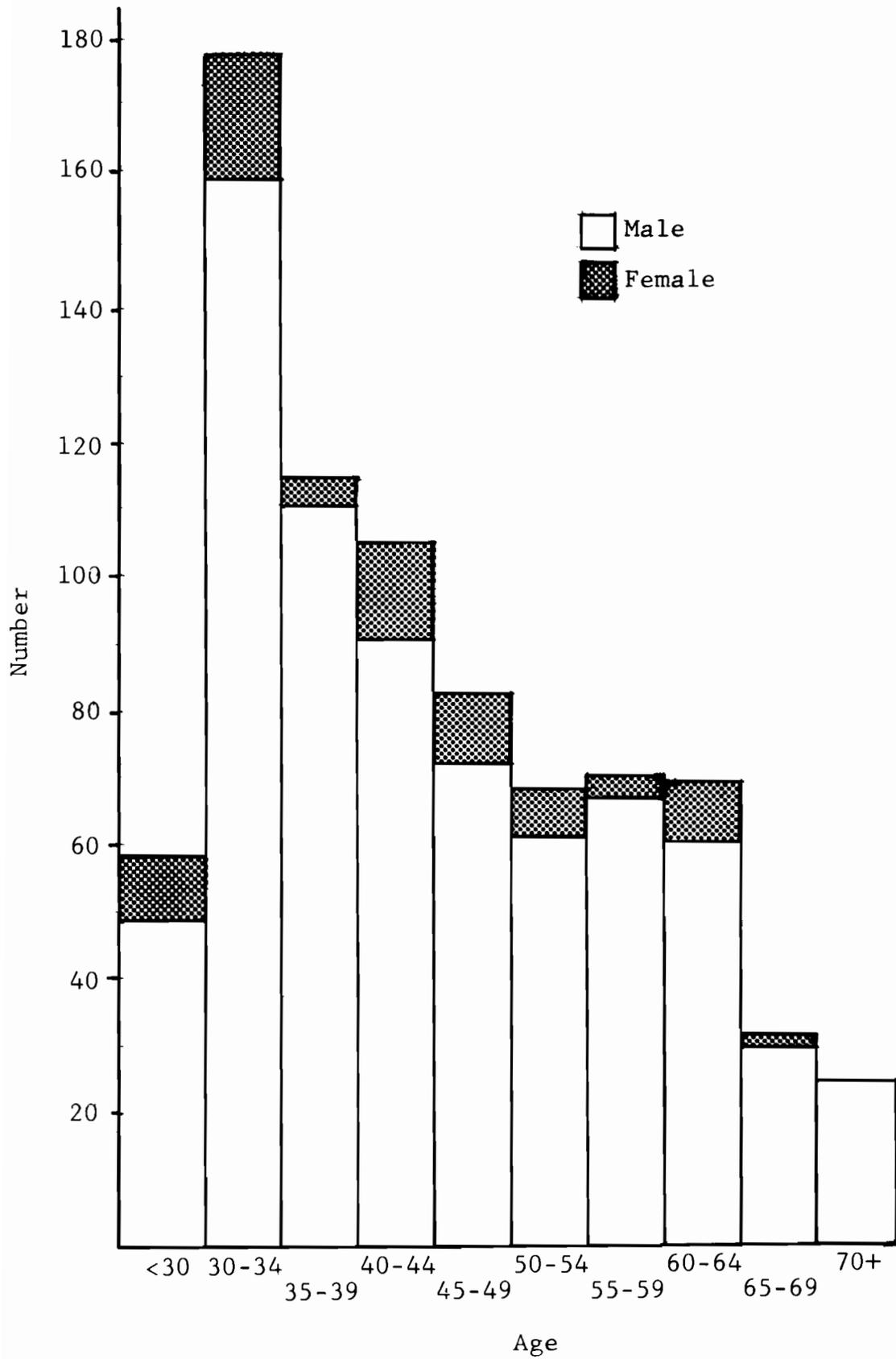


Figure 2
Number of M.D.s Working in Vermont
By Years Active in Medicine, 1979

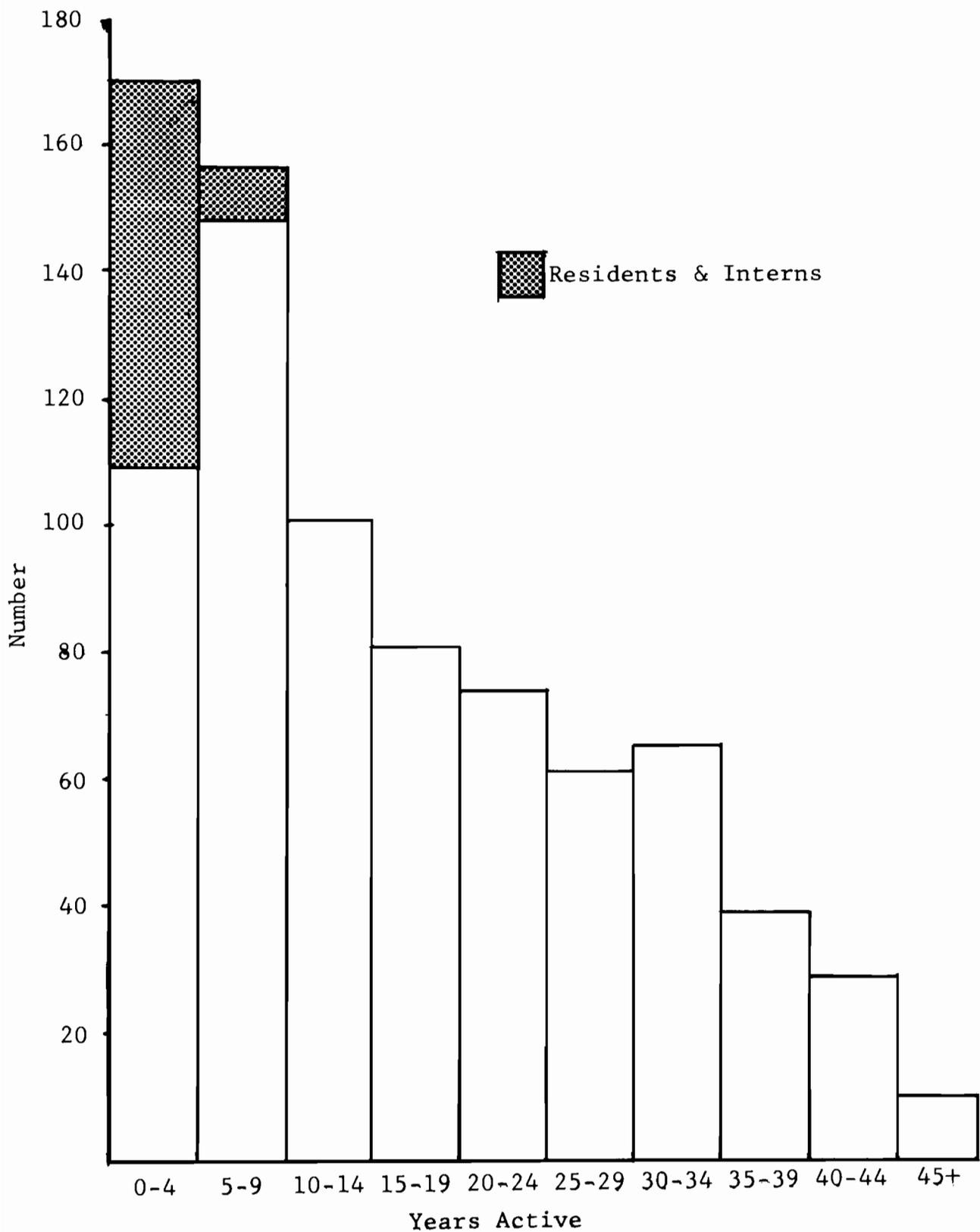


Figure 3
Percent of M.D.s Working in Vermont
Who Are Female, by Age, 1979

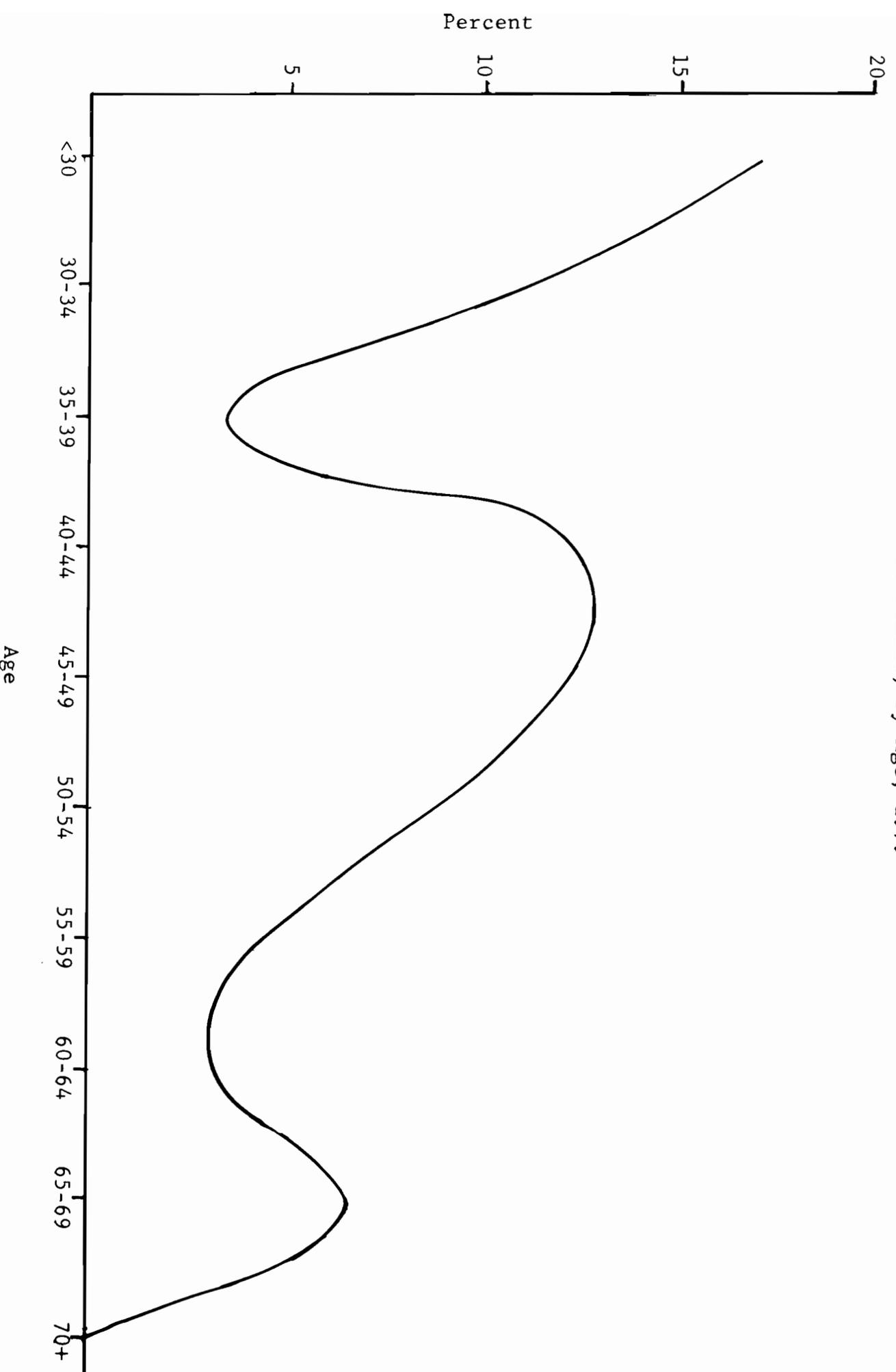


Table 2

Location of Basic Medical Education
of M.D.s Working in Vermont, 1979

<u>Location</u>	<u>Number</u>	<u>Percent</u>
Vermont	215	27.3
Other U.S.	474	60.1
Foreign	84	10.7
Unknown	15	1.9
TOTAL	788	100.0

ACTIVITY

The portion of time spent by physicians in various medicine-related activities and at the different locations where medicine is practiced also contributes to the picture of medical care in Vermont. In addition to direct patient care, doctors spend time teaching and performing research, as well as engaging in administrative activities. Medical care can be received in physician offices, hospitals, nursing homes and many other settings.

Table 3 and Figure 4 provide information on the activities of physicians. Although less than half of the Vermont physicians indicate the provision of patient care as their exclusive medical activity, nearly all (97%) provide some patient care, and direct patient care accounts for 82 percent of the total medical time spent in Vermont.

The principal settings for medicine-related activities are hospitals (48%) and physician offices (36%). Nearly ten percent of total physician time is spent at colleges of medicine. Figure 5 provides a breakdown of the most significant settings.

Table 4 and Figure 6 indicate the total amount of time spent in medicine related activity. Table 4 presents this data as a function of age and Figure 6 displays a breakdown into the ranges of total hours worked. Only eight percent of active physicians work less than 40 hours in a week. The general pattern of activity seems to be the spending of approximately 45 hours of a 55 hour work week in patient care. This pattern is maintained until the nearing of retirement age.

Table 3
 Mean Hours per Week of M.D.s
 Working in Vermont by Activity, 1979

<u>Activity</u>	<u>Mean Hours</u>	<u># M.D.s in Activity</u>	
		<u>All*</u>	<u>Only**</u>
Direct Patient Care	45.5	724	321
Teaching	3.5	309	2
Research	2.7	145	2
Administration	3.3	270	8
Retail/Wholesale	<0.1	1	0
Other Activity	0.6	49	3
Total Working Hours	55.7	-	-

*All = Number of physicians spending one or more hours in the indicated activity

**Only = Number of physicians for whom indicated activity is their exclusive activity

Figure 4
Distribution of Hours by Activity,
M.D.s Working in Vermont, 1979

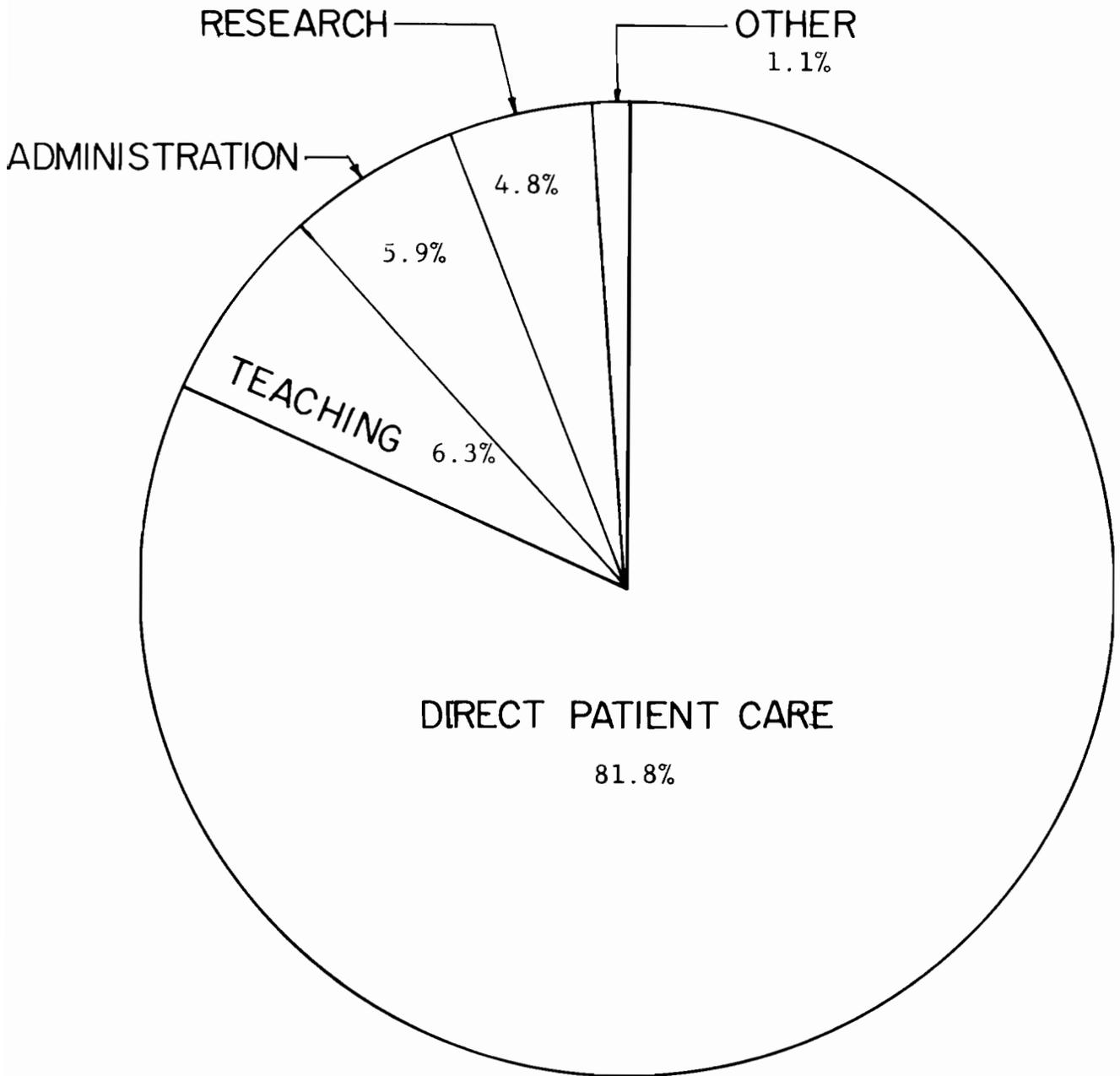


Figure 5
Distribution of Hours by Setting,
M.D.s Working in Vermont, 1979

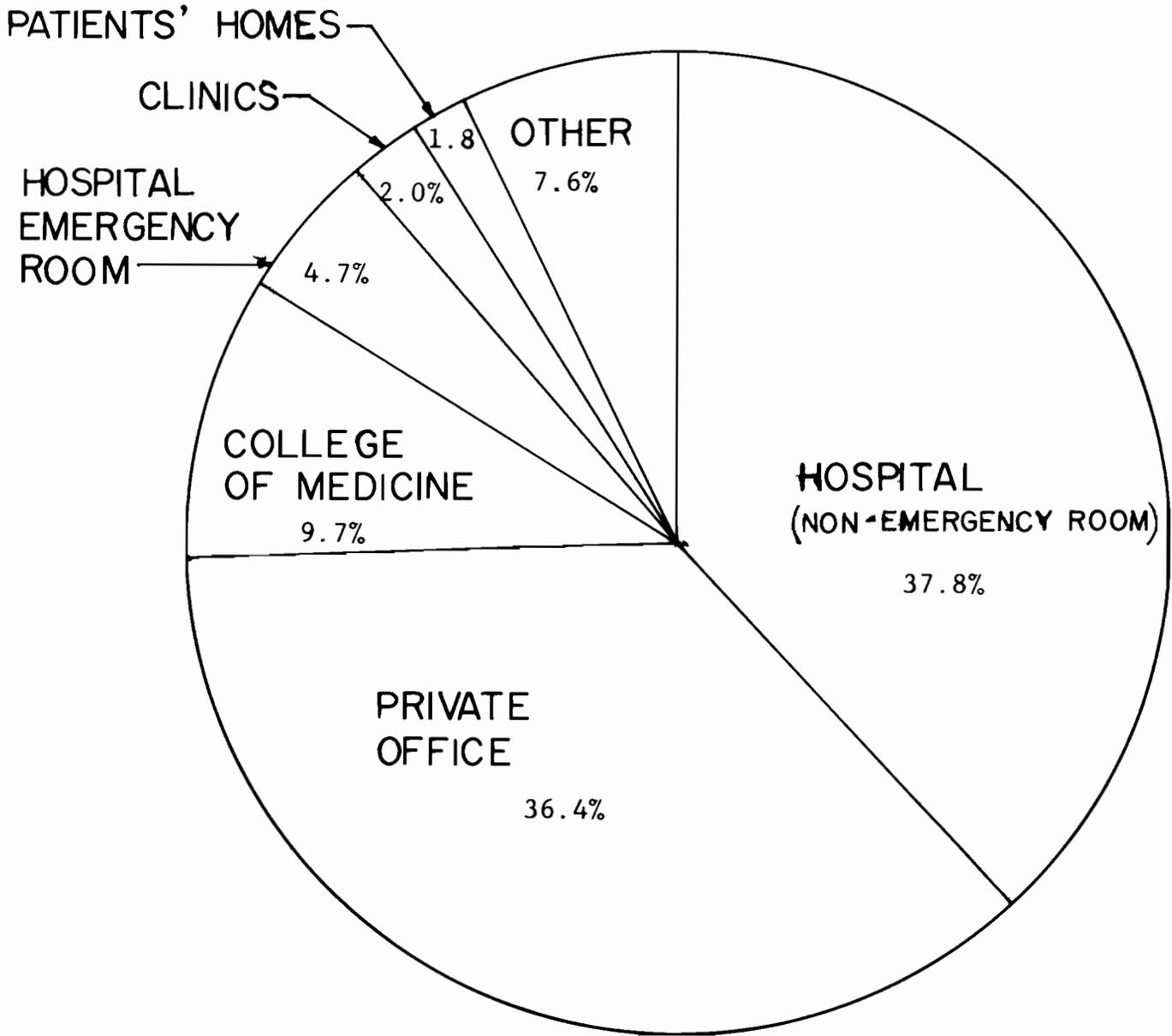


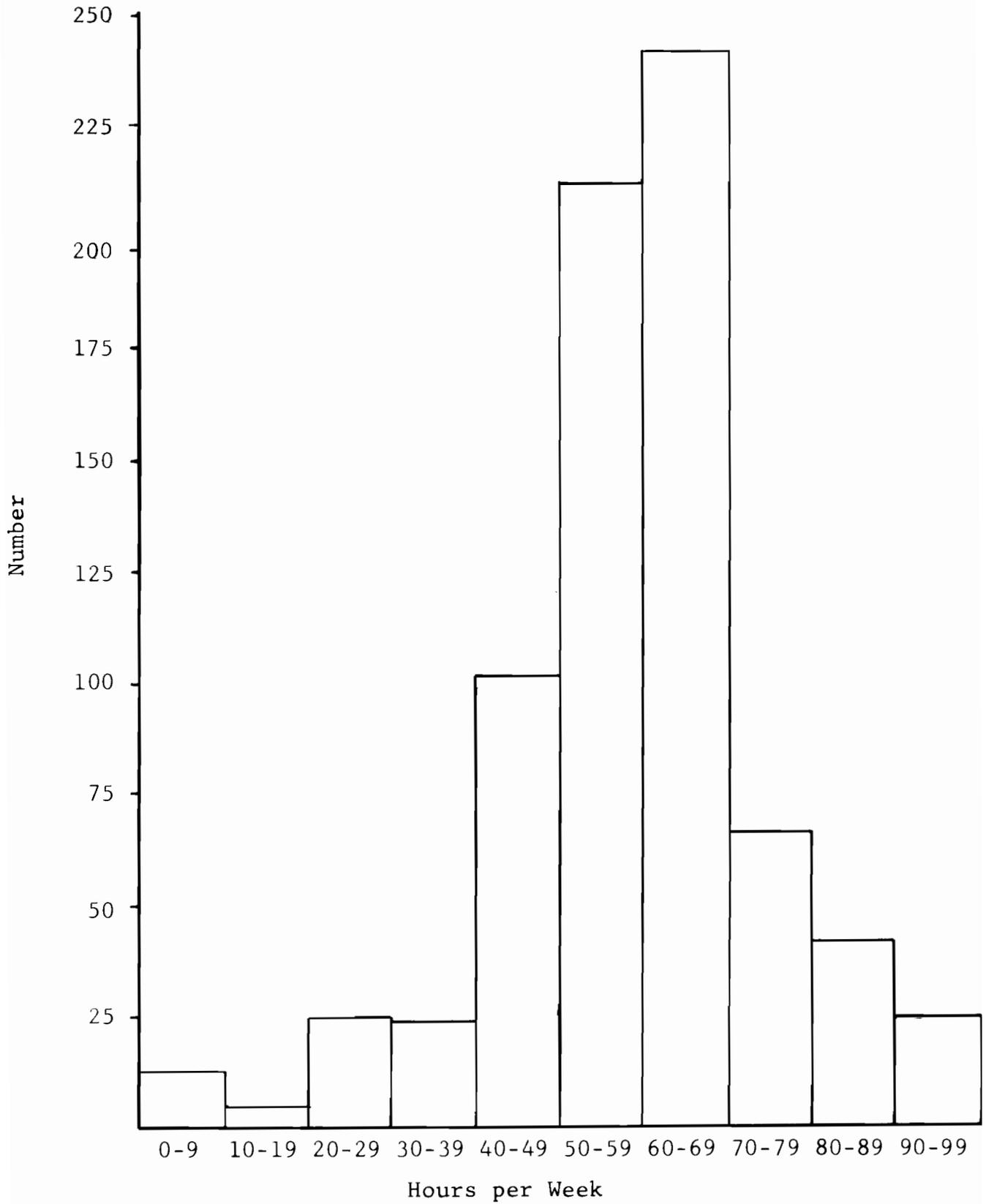
Table 4

Mean Hours per Week Spent in Medicine Related Activities
M.D.s Working in Vermont by Age and Status, 1979

Age*	All M.D.s			M.D.s Excluding Residents	
	Number	Total Hours*	Patient Care Hours	Number	Total Hours
<30	58	65.1	56.8	20	49.2
30-34	177	56.5	47.9	144	55.5
35-39	114	57.9	47.6	111	57.7
40-44	104	53.8	42.4	104	53.8
45-49	82	56.4	42.6	82	56.4
50-54	67	57.1	43.0	67	57.1
55-59	69	53.7	42.2	69	53.7
60-64	62	52.7	44.6	62	52.7
65-69	31	55.3	46.6	29	55.3
70+	24	33.8	33.8	24	33.8
TOTAL	788	55.7	45.5	712	54.6

*Hours worked or age is unknown for 39 M.D.s

Figure 6
Number of M.D.s Working in Vermont,
By Mean Hours Worked per Week, 1979



SPECIALIZATION

Subsequent to completion of basic medical training, a physician may choose to specialize in a **particular** type of medicine, such as family practice or otorhinolaryngology. For many specialties, a national board of physicians exists for the purpose of certification of a physician in that specialty. Thus, a physician may declare a specialty, and with appropriate training and examination, be certified in that specialty.

With the exception of Table 6, specialization data in this report is presented by specialty group. For the particular specialties included in each group, see Appendix D.

Table 5 presents data on the number of Vermont physicians who indicate a specialty. Over 93 percent of the physicians active in Vermont indicate at least one specialty and more than half of these are certified in their specialty. Just over one third of the responding physicians report a second specialty, with 27 percent of those certified. Less than 1 in 10 have a tertiary specialty, with only 16 percent of those, or only 2 percent of the total group, certified.

Table 6 displays the number of physicians designating each of the 69 specialties recognized by the American Medical Association as their primary specialty.

Table 7 tabulates specialty group by form of employment. Approximately half of the primary care physicians¹ are in solo practice self-employed.

Table 8 shows the composition of each specialty group by sex of practitioner. Currently, pediatrics and psychiatry are the two specialties most frequently chosen by women, and of the total number of practitioners, the highest percentages of women occur in these two fields.

A comparison of age distributions between primary care physicians and referral physicians indicates that the age compositions of both groups are nearly identical. The average age of primary care physicians is 44, while the remainder of the medical work force averages 45 years old.

¹Primary care physicians are those physicians who provide routine care rather than highly specialized treatment. Included in this group are general practitioners, family practice specialists, internists, pediatricians, obstetricians, and gynecologists. See Appendix E for complete definition.

Table 5

Number of M.D.s Working in Vermont
Indicating One or More Specialties, 1979

	Number	Number Certified	Percent Certified
Primary Specialty	782	405	52
Secondary Specialty	285	79	27
Tertiary Specialty	73	12	16
No Specialty	0	-	-
Specialty Status Not Specified	6	-	-

Table 6

Number of M.D.s Working in Vermont By Specialty, 1979

No Specialty	0	Pathology	28
Aerospace Medicine	0	Pathology, Clinical	4
Allergy	5	Pathology, Forensic	1
Anesthesiology	30	Pediatrics	66
Broncho-esophagology	0	Pediatrics, Allergy	1
Cardio-vascular Diseases	12	Pediatrics, Cardiology	0
Dermatology	7	Pharmacology, Clinical	0
Diabetes	0	Phys. Medicine & Rehab.	3
Emergency Medicine	20	Psychiatry	62
Endocrinology	1	Psychiatry, Child	9
Family Practice	80	Psychoanalysis	0
Gastroenterology	3	Psychosomatic Medicine	1
General Practice	41	Public Health	6
Gen. Preventative Med.	0	Pulmonary Diseases	3
Geriatrics	3	Radiology	14
Gynecology	6	Radiology, Diagnostic	17
Hematology	2	Radiology, Pediatric	1
Hypnosis	0	Radiology, Therapeutic	2
Infectious Disease	1	Rheumatology	3
Internal Medicine	131	Rhinology	0
Laryngology	0	Roentgenology, Diagnostic	2
Legal Medicine	0	Surgery, Abdominal	2
Neoplastic Diseases	1	Surgery, Cardio-vascular	1
Nephrology	4	Surgery, Colon and Rectal	0
Neurology	11	Surgery, General	61
Neurology, Child	1	Surgery, Hand	1
Neuropathology	1	Surgery, Head and Neck	0
Nuclear Medicine	1	Surgery, Neurological	3
Nutrition	0	Surgery, Orthopedic	28
Obstetrics	2	Surgery, Pediatric	1
Obstetrics & Gynecology	35	Surgery, Plastic	2
Occupational Medicine	2	Surgery, Thoracic	2
Ophthalmology	25	Surgery, Traumatic	0
Otology	1	Surgery, Urological	13
Otorhinolaryngology	10	Other Specialty	9
		Unknown	6

Table 7

Form of Employment by Specialty Group
M.D.s Working in Vermont, 1979

Specialty*	Self Employed	Single Spec. Group	Multi- Spec. Group	Non- Group	Non- Govt. Inst.	State Govt.	Other	Unknown	Total
Anesthesiology	4	19	1	1	3	0	1	1	30
Emergency Medicine	0	1	0	1	17	0	0	1	20
Family & General Practice	57	37	4	7	6	2	7	1	121
General Surgery	32	9	14	1	5	0	0	0	61
Other Surgery	21	18	7	1	12	3	1	2	65
Internal Medicine	35	24	20	15	32	0	2	3	131
Other Medicine	13	5	10	3	12	0	3	1	47
Obstetrics/Gynecology	17	11	4	1	7	0	1	2	43
Ophthalmology	19	3	0	0	3	0	0	0	25
Pathology	1	8	0	0	24	0	0	0	33
Pediatrics	25	17	3	3	13	4	1	1	67
Psychiatry	18	8	5	4	21	7	5	3	71
Radiology	2	19	4	2	4	0	1	2	34
Other	5	8	2	0	11	2	6	0	34
Unknown	0	0	0	0	3	0	0	3	6
TOTAL	249	187	74	39	173	18	28	20	788

*See Appendix D for complete definition of specialty groups

Table 8
Sex By Specialty Group
M.D.s Working in Vermont, 1979

<u>Specialty*</u>	<u>Male</u>	<u>Female</u>	<u>TOTAL</u>
Anesthesiology	29	1	30
Emergency Medicine	19	1	20
Family & General Practice	110	11	121
General Surgery	61	0	61
Other Surgery	64	1	65
Internal Medicine	126	5	131
Other Medicine	42	5	47
Obstetrics & Gynecology	39	4	43
Ophthalmology	25	0	25
Pathology	30	3	33
Pediatrics	51	16	67
Psychiatry	58	13	71
Radiology	32	2	34
Other	29	5	34
Unknown	4	2	6
 TOTAL	 719	 69	 788

*See Appendix D for definitions of specialty groups

GEOGRAPHY

Within Vermont, differences in the patterns of medical care are apparent across counties. The most obvious difference is between Chittenden County and the remainder of Vermont. The presence of the medical college and the state's only referral hospital in Burlington, as well as the fact that Chittenden is twice as heavily populated as the next largest county serve in part to explain the variances.

Table 9 displays the number and population-based rate of physician coverage in each county, for all physicians, and primary care physicians only. It is important to note that while Chittenden County is the primary work location of nearly half of Vermont's medical doctors, primary care physicians are more evenly distributed across the state. It is also interesting to note that the rate of primary care physicians in Vermont is nearly identical to the national rate.

Figures 7 and 8 map the ratios of physicians to population in each county in Vermont. Figure 7 shows the ratio of all physicians while Figure 8 reflects primary care providers.

Figure 9 allows direct comparisons between the primary care physician and referral physician rates. As can be seen, while there is variation in the distribution of primary care physicians, it is smaller than that observed in referral physician rates.

In general, the number of physicians per capita increases with population. The rate of referral physicians follows population even more closely than that of primary care physicians. The notable exception to this is Lamoille County, which is the third smallest county in the state. The Lamoille County primary care physician rate is second only to Chittenden County. A possible explanation for this is that Lamoille is the smallest county in the state with a hospital, and thus most affected by staff associated with the hospital.

Table 10 displays the total hours of primary care provided by primary care physicians per thousand population in each county. This is another way of looking at the availability of health care but, like the physician rate, its usefulness is limited because it does not consider patient origin.

Following this is Table 11, showing mean total hours and mean hours spent in direct patient care in each county. With the exception of Chittenden County, physicians spend about 92 percent of their working hours in direct patient care. The lower rate evident in Chittenden County is more than offset by the higher ratio of physicians to population, as shown in Table 9.

Table 12 tabulates specialty group by county of work. This furthers the picture of general care being available across the state, with specialized care more concentrated in the Chittenden County area.

Table 13 displays hours spent in selected settings by county of work. In counties with fewer hospital beds, a smaller portion of total work time is spent in hospitals, and, a greater portion is spent in emergency rooms.

Table 14 presents county of work by form of employment. Outside Chittenden County, physicians are most likely to be self-employed, or members of a single specialty group. Within Chittenden County, most physicians are employees of non-governmental institutions, members of groups, or self-employed. Over 60 percent of physicians in groups work in Chittenden County.

Approximately one doctor in 10 changed his/her primary location of practice between 1978 and 1979, including 74 physicians who moved into Vermont (12 from New York, 8 from New Hampshire, 5 from Connecticut, 8 from Pennsylvania, 6 from Massachusetts, and 35 from elsewhere) and 7 who moved out.

Within Vermont, 15 medical doctors changed the county of their primary work location, with the largest numbers moving into (5) or out of (6) Chittenden County.

One hundred forty two physicians indicate one or more additional locations of work besides their primary location, of these 75 are located in a different county.

Table 9
 Total and Primary Care M.D.s per 10,000 Population
 By County of Work, Vermont, 1979

County of Work	Population ¹	All M.D.s		Primary Care ²	
		Number	Rate	Number	Rate
Addison	26,800	18	6.7	12	4.5
Bennington	31,550	51	16.2	25	7.9
Caledonia/Essex	31,200	24	7.7	12	3.8
Chittenden	111,800	364	32.6	116	10.4
Franklin/Grand Isle	37,250	30	8.0	16	4.3
Lamoille	15,400	23	14.9	14	9.1
Orange	20,300	14	6.9	13	6.4
Orleans	22,800	21	9.2	9	3.9
Rutland	56,000	74	13.2	31	5.5
Washington	50,500	61	12.1	29	5.7
Windham	35,300	61	17.3	29	8.2
Windsor	48,000	47	9.8	26	5.4
TOTAL, VERMONT	486,900	788	16.2	332	6.8
UNITED STATES	214,398,000 ⁴	312,089 ³	14.6	141,244 ³	6.7

¹1978 Provisional Population Estimates, Vermont Department of Health.

²Does not include residents and interns.

³Characteristics of Physicians: Vermont.

⁴U.S. Bureau of the Census

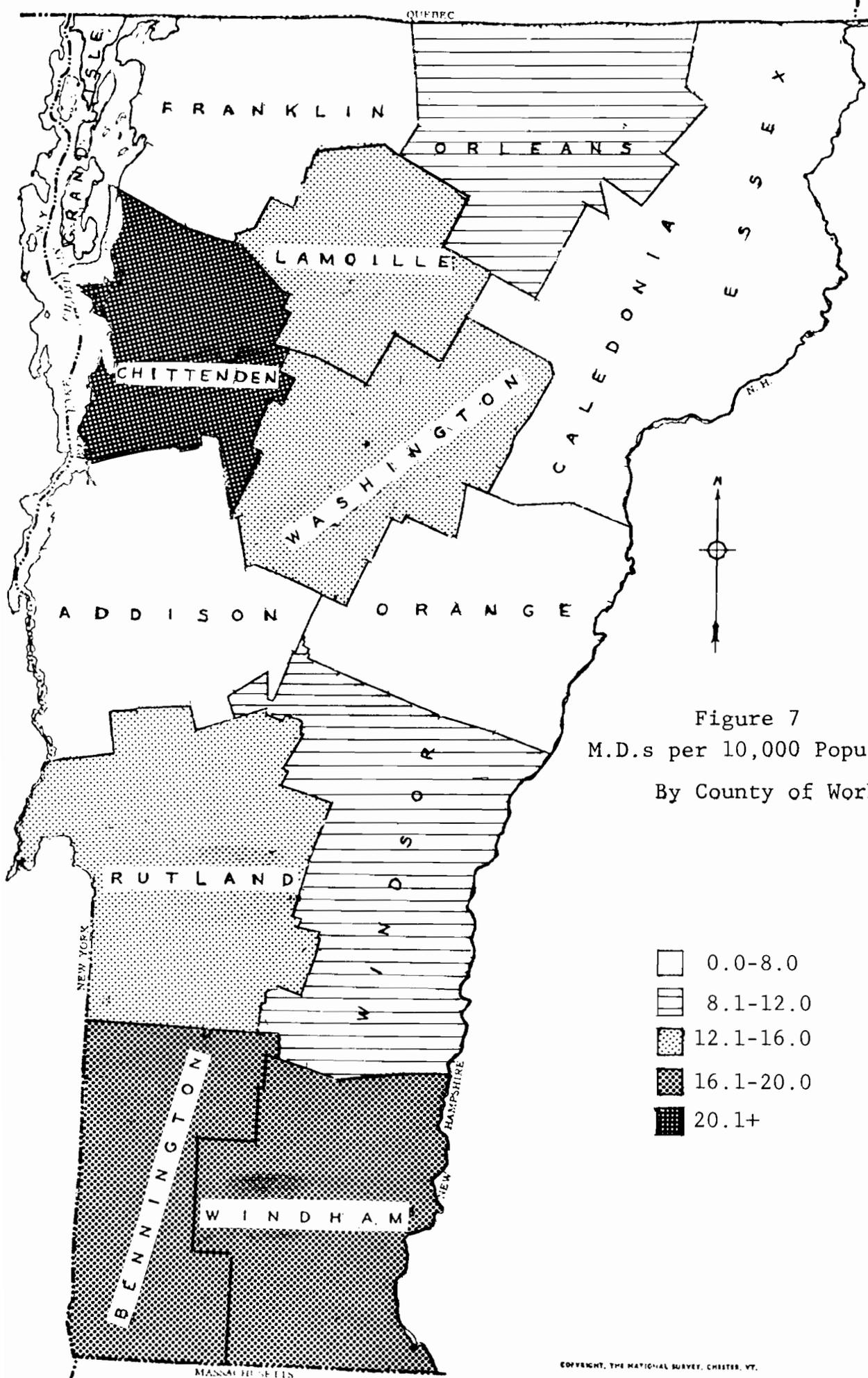


Figure 7
M.D.s per 10,000 Population
By County of Work

- 0.0-8.0
- ▨ 8.1-12.0
- ▩ 12.1-16.0
- ▧ 16.1-20.0
- 20.1+

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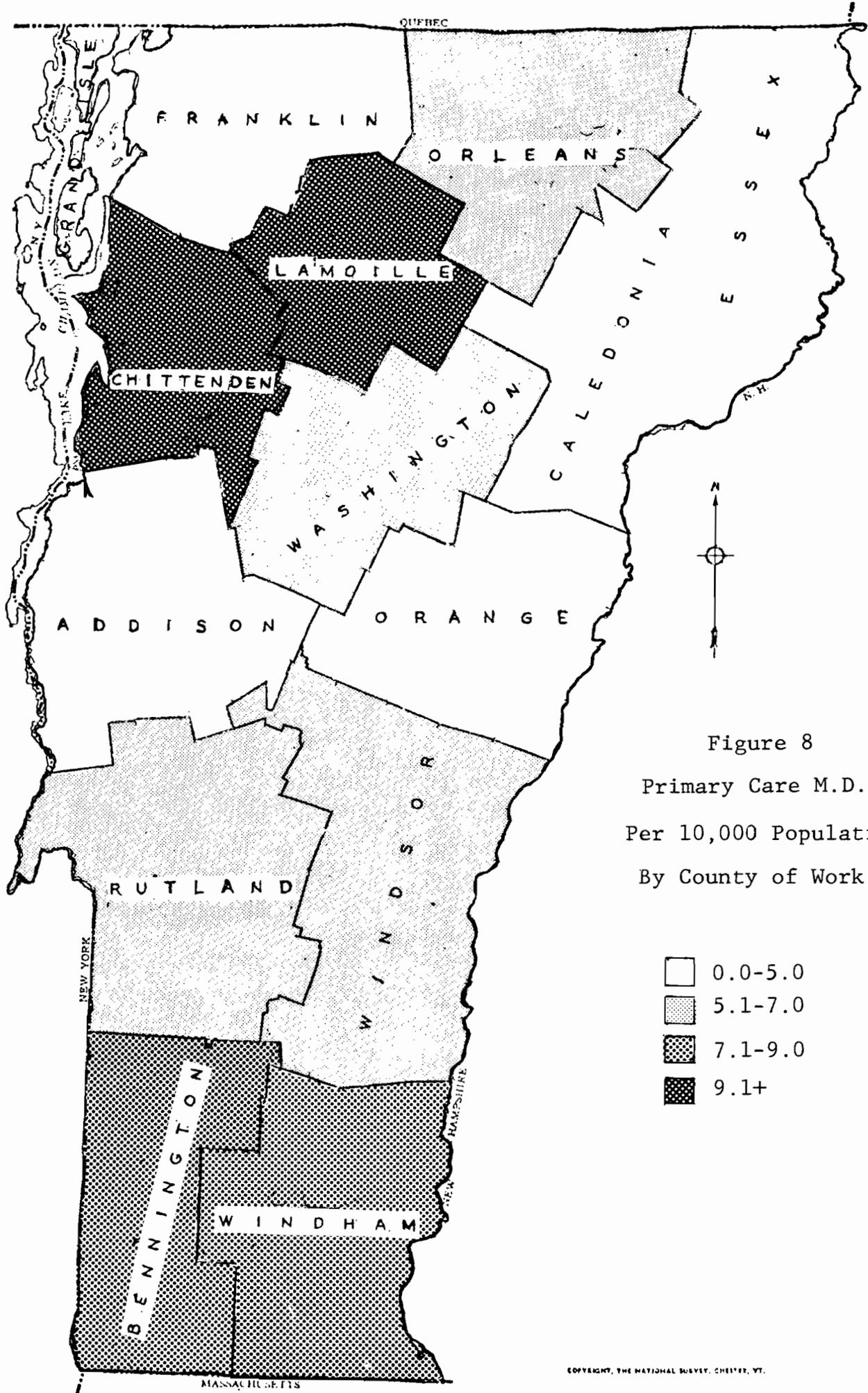
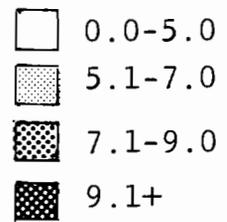


Figure 8
 Primary Care M.D.s
 Per 10,000 Population
 By County of Work



Physicians per 10,000 Population

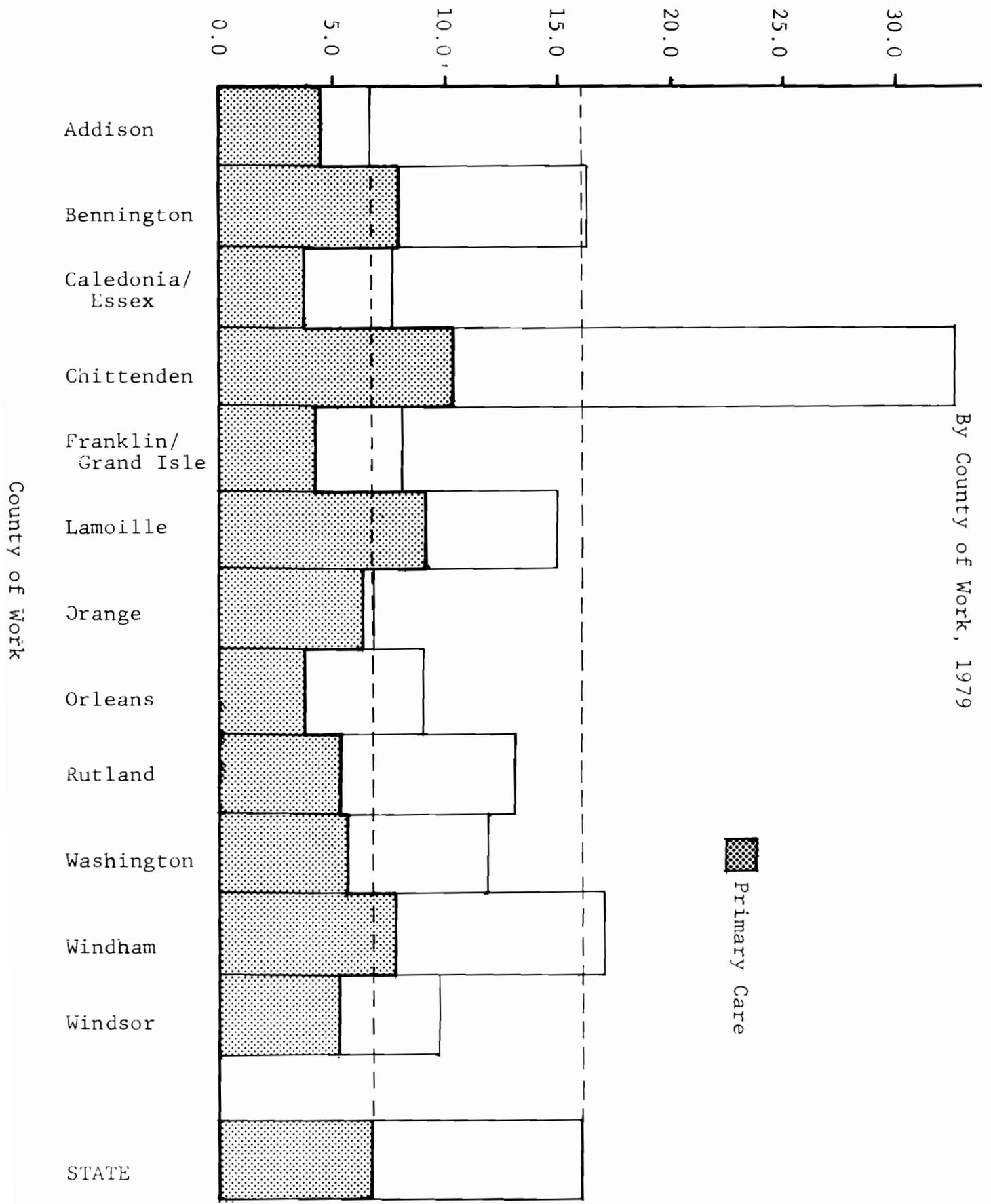


Figure 9
Number of Primary Care and Referral M.D.s per 10,000 Population
By County of Work, 1979

Table 10

Hours per Week of Direct Patient Care
 Provided by Primary Care Physicians
 Per 1,000 Population by County of Work, Vermont, 1979

County	Population	Number of Primary Care Physicians	Total Hours of Direct Patient Care per 1,000 Population per Week*
Addison	26,800	13	29.3
Bennington	31,550	25	40.8
Caledonia/Essex	31,200	12	20.2
Chittenden	111,800	142	52.3
Franklin/Grand Isle	37,250	16	22.5
Lamoille	15,400	15	46.4
Orange	20,300	13	28.4
Orleans	22,800	9	24.0
Rutland	56,000	31	26.4
Washington	50,500	29	28.4
Windham	35,300	30	39.7
Windsor	48,000	26	25.6
TOTAL	486,900	361	34.4

*16 physicians did not report hours worked

Table 11
 Percent of Time Spent in Direct Patient Care
 By County of Work, Vermont, 1979

County	Mean Total Hours	Mean Hours Direct Patient Care	Percent of Time Direct Patient Care
Addison	59.4	55.9	94.1
Bennington	55.6	51.9	93.3
Caledonia/Essex	54.5	51.9	95.2
Chittenden	58.7	41.4	70.5
Franklin/Grand Isle	55.1	52.0	94.3
Lamoille	48.5	47.5	97.9
Orange	45.6	44.7	98.0
Orleans	53.5	48.2	90.1
Rutland	55.6	52.3	94.1
Washington	51.7	47.1	91.1
Windham	52.3	45.2	86.4
Windsor	49.7	44.7	89.9
STATE	55.7	45.5	81.7

State Without Chittenden Co.	53.1	49.0	92.3
Chittenden Co. Without Residents and Interns	56.5	37.8	66.9
State Without Residents and Interns	54.6	44.4	81.3

Unknown hours = 38

Table 12

County of Work by Specialty Group
M.D.s Working in Vermont, 1979

Specialty*	Addison	Bennington	Caledonia/Essex	Chittenden	Franklin/Grand Isle	Lamoille	Orange	Orleans	Rutland	Washington	Windham	Windsor	Total
Anesthesiology	0	3	1	14	1	1	0	0	4	2	2	2	30
Emergency Medicine	0	1	0	3	1	3	0	3	4	2	0	3	20
Family and General Practice	7	15	4	25	5	8	6	4	14	11	15	7	121
General Surgery	1	4	3	19	5	1	1	2	9	5	7	4	61
Other Surgery	0	5	2	34	2	1	0	1	12	5	3	0	65
Internal Medicine	4	6	4	65	5	4	2	2	8	10	7	14	131
Other Medicine	0	1	1	39	1	0	0	1	3	0	0	1	47
Obstetrics and Gynecology	1	3	2	20	2	1	1	1	4	4	3	1	43
Ophthalmology	1	2	3	7	1	1	0	1	3	3	2	1	25
Pathology	0	2	0	25	0	0	0	1	2	1	2	0	33
Pediatrics	1	1	2	33	4	2	4	2	5	4	5	4	67
Psychiatry	2	4	1	33	2	1	0	0	2	10	9	7	71
Radiology, Nuclear Medicine	1	1	1	18	1	0	0	2	3	1	3	3	34
Other	0	3	0	24	0	0	0	1	0	3	2	1	34
Unknown	0	0	0	5	0	0	0	0	1	0	0	0	6
TOTAL	18	51	24	364	30	23	14	21	74	61	60	48	788

*See Appendix D for Specialties Included in Specialty Groups

Table 13
 Mean Hours Per Week in Selected Settings
 By County of Work, Vermont M.D.s, 1979

County	Hosp. Beds*	Hours Spent In:					Total Hours
		Hosp.	Office	College of Med.	Hosp. E.R.	Patient Homes	
Addison	45	11.4	34.1	5.0	3.0	1.3	59.4
Bennington	160	21.4	24.6	0.1	3.5	2.6	55.6
Caledonia/ Essex	100	18.7	28.7	0	1.9	0.2	54.4
Chittenden	666	24.5	15.9	10.8	1.2	0.5	58.7
Franklin/ Grand Isle	139	16.8	26.2	0.8	6.8	0.6	55.1
Lamoille	54	10.1	25.5	0.2	9.3	0.6	48.5
Orange	53	8.6	31.1	0	1.9	1.6	45.6
Orleans	80	13.8	25.9	0	10.3	1.5	53.5
Rutland	301	22.3	24.4	0.3	4.4	1.7	55.6
Washington	175	18.3	21.1	0.4	2.4	1.9	51.7
Windham	195	23.0	18.4	1.8	2.0	0.9	52.3
Windsor	104	13.5	22.2	0.5	2.5	0.9	49.7
STATE	2,072	21.1	20.3	5.4	2.6	1.0	55.7

38 physicians did not indicate hours by setting

*Vermont Department of Health Survey of Health Care Facilities.
 This survey includes only public and general hospitals (10/78).

Table 14

Number of M.D.s Working in Vermont
By County of Work and Form of Employment, 1979

Form of Employment	By County										Total	Residents/ Interns Only		
	Addison	Bennington	Caledonia/Essex	Chittenden	Franklin/Grand Isle	Lamoille	Orange	Orleans	Rutland	Washington			Windham	Windsor
Self Employed	16	26	7	53	20	11	6	9	32	23	31	15	249	1
Single Specialty Group	1	13	11	92	1	3	2	0	27	18	10	9	187	8
Multi-specialty Group	0	0	5	49	2	0	2	3	1	2	2	8	74	1
Non-group Arrangement	0	2	0	18	3	0	2	2	2	2	4	4	39	3
Individual Practitioner	0	0	0	0	0	0	0	1	0	0	2	0	3	0
Retail/wholesale Trade	0	0	0	2	0	0	0	0	0	1	0	0	3	0
Partnership	0	0	0	2	0	0	1	0	1	1	0	0	5	0
Group Health Plan Facility	0	0	0	1	1	0	0	0	0	0	0	0	2	0
Non-govt. Institution	1	6	0	121	2	6	0	6	8	4	11	8	173	55
County Government	0	0	0	0	0	0	0	0	0	1	0	0	1	0
State Government	0	0	0	10	0	1	1	0	0	6	0	0	18	2
Other	0	2	1	6	1	1	0	0	2	1	0	0	14	0
Unknown	0	2	0	10	0	1	0	0	1	2	0	0	20	4
TOTAL	18	51	24	364	30	23	14	21	74	61	60	48	788	74

DOCTORS OF OSTEOPATHY

As of January 1979, 76 Doctors of Osteopathy were licensed by the state of Vermont. Of these, 58 responded to the survey. Sixteen indicated Vermont as their state of work. An additional 4 indicated that they lived in Vermont but were not currently active in medicine.

The average age of D.O.s active in Vermont is 61 with 4 doctors under 50. Twelve D.O.s have been active 30 or more years.

The mean number of hours per week in medical or medicine-related activities of these 16 physicians is 51.8. Of these, 49.7 hours, or 96 percent are spent in direct patient care. Thirty-five hours per week are spent in a private office, 8.5 in a hospital, 5.3 in patient homes, 1.3 in nursing homes, and the remaining 1.7 hours in various other locations.

The predominant form of employment is the solo practice (75 percent) with 3 D.O.s indicating membership in a group practice, and one indicating employment in a non-government institution.

Twelve of the 16 osteopaths working in Vermont (75 percent) are affiliated with one or more hospitals.

APPENDICES



STATE OF VERMONT
AGENCY OF HUMAN SERVICES

DEPARTMENT OF HEALTH
115 COLCHESTER AVENUE
BURLINGTON, VERMONT 05401
(802) 862-5701

December 1, 1978

Dear Doctor:

The Vermont State Department of Health, in cooperation with the Vermont Board of Medical Practice, the Vermont State Medical Society, and the National Center for Health Statistics, is distributing the attached questionnaire as a means of gathering vital data on the distribution of physicians. This effort is supported as part of the Cooperative Health Statistics System (CHSS), a program in which state and federal governments share in the collection and analysis of mutually desirable health data.

Any information beyond that required for licensure will be treated as confidential data. Individual names will not be used by CHSS at the federal level except for unduplicating the count of professionals licensed in more than one state. Data without name, address or other individual identifiers will be made available in non-aggregated form to agencies within the federal Department of Health, Education and Welfare. Any additional release of information or publication by the federal government will be in the form of aggregated statistical data. The state Health Department will maintain a list of names and addresses for the purpose of disseminating health information to Vermont physicians.

The information you provide will be used by the Bureau of Health Manpower and the National Center for Health Statistics to describe the current supply, geographic distribution, demographic, and educational characteristics of licensed health professionals in the United States. Additionally, the data will be used by state and federal governments, the State Medical Society and Board of Medical Practice for projecting supply, determining emerging trends in the profession, designating shortage areas, and planning and evaluating programs and policies.

Completion of the questionnaire is voluntary and there is no penalty for declining to participate in whole or in part. We hope, however, that you choose to participate by returning the completed questionnaire and the license renewal application in the enclosed envelope before January 31, the license expiration date.

Sincerely,

Lloyd F. Novick
Lloyd F. Novick, M.D.
State Health Commissioner

M.J. Paulsen
M.J. Paulsen, M.D., Chairman
Vermont Board of Medical Practice

C. Peter Albright
C. Peter Albright, M.D., President
Vermont State Medical Society

PHYSICIAN MANPOWER INFORMATION SURVEY
VERMONT DEPARTMENT OF HEALTH
with the cooperation of
THE VERMONT BOARD OF MEDICAL PRACTICE
THE VERMONT STATE MEDICAL SOCIETY

-
1. Name _____ Renewal Date: 1/31/79
2. Address: _____ VT License # _____
(street) Year first Licensed
(town or city) (state) (ZIP) in Vermont: 19____
3. State of Residence (if different): _____
4. Birth Date: __ __/ __ __/ __ __
5. U.S. Social Security Number: ____ - ____ - ____
6. Sex: Male Female
7. Color or Race: White
 Black
 American Indian
 Asian/Pacific Islander
 Other
8. Spanish Origin: Yes
 No
9. Basic Medical Education Completed: Year: 19 ____
State/Country: _____
10. Principle Location of Current Work: State of _____
11. Currently Licensed in Other States/Countries: _____

PLEASE CONTINUE WITH QUESTION 12 ON THE NEXT PAGE

18. With what hospital(s) are you currently affiliated?

19. Are you currently: an intern Please STOP here and return this form with your application

a resident or fellow

a working physician

Please continue completing this questionnaire.

20. In an average week, how many total hours do you spend in medical practice or performing medicine-related activities? _____ Hours

21. In an average week, how many hours do you spend in (medical practice or in medicine-related activities in) each of the following EMPLOYMENT SETTINGS?

Hours/week

- Practitioner's Office
- Group Health Plan Facility
- Free-standing Clinic
- Patient's Homes
- Hospital (non-federal)
- Hospital (Emergency Room)
- Nursing Home
- Military Health Facility
- Federal, Non-military Facility
- College of Medicine
- College of Nursing
- Other College
- School or Center for the Handicapped
- Elementary or High School
- Other School
- Research Institution
- Professional Health Assoc.
- Administrative or Regulatory Agency
- Manufacturing or Industrial Plant
- Other Business Establishment
- Other (please specify)

_____ Total (must agree with #20)

22. In an average week, how many hours do you spend in each of the following EMPLOYMENT ACTIVITIES?

Hours/Week

- Providing direct patient care and/or performing any activity related to the provision of direct patient care.
- Preparation and/or teaching of medicine-related courses.
- Medical research, including all phases of funding, investigation, and documentation of medical problems.
- Administrative activities for a health organization, facility, or agency.
- Retail or wholesale trade activities
- Other (please specify)

_____ Total (must agree with #20)

23. Which one of the following best describes your principal form of employment in medicine?

- self employed, solo practice
- single specialty group or partnership
- multi-specialty group or partnership
- non-group arrangement with other physicians

Employee of:

- individual practitioner
- retail or wholsale trade establishment, industry or business
- partnership or group of practitioners
- group health plan facility or HMO
- non-governmental institution (hospital, nursing home, school, college, etc.)
- local government
- county government
- state government
- federal government (civilian)
- federal government (armed forces personnel only)

- unpaid volunteer
- other (please specify) _____

24. Please indicate, from the table below, the code numbers of your primary, secondary and tertiary specialties, whether you are board-certified in each, and what percent of your time you spend at each.

	<u>Board Certified (check)</u>	<u>Percent of time</u>
<input type="checkbox"/> Primary	_____	_____
<input type="checkbox"/> Secondary	_____	_____
<input type="checkbox"/> Tertiary	_____	_____

00 No specialty	25 Neurology, Child	48 Pulmonary Diseases
01 Aerospace medicine	26 Neuropathology	49 Radiology
02 Allergy	27 Nuclear medicine	50 Radiology, Diagnostic
03 Anesthesiology	28 Nutrition	51 Radiology, Pediatric
04 Broncho-Esophagology	29 Obstetrics	52 Radiology, Therapeutic
05 Cardio-vascular diseases	30 Obstetrics & Gynecology	53 Rheumatology
06 Dermatology	31 Occupational medicine	54 Rhinology
07 Diabetes	32 Ophthalmology	55 Roentgenology, Diagnostic
08 Emergency medicine	33 Otology	56 Surgery, Abdominal
09 Endocrinology	34 Otorhinolarngology	57 Surgery, Cardio-vascular
10 Family Practice	35 Pathology	58 Surgery, Colon and Rectal
11 Gastroenterology	36 Pathology, Clinical	59 Surgery, General
12 General Practice	37 Pathology, Forensic	60 Surgery, Hand
13 General preventative medicine	38 Pediatrics	61 Surgery, Head and Neck
14 Geriatrics	39 Pediatrics, Allergy	62 Surgery, Neurological
15 Gynecology	40 Pediatrics, Cardiology	63 Surgery, Orthopedic
16 Hematology	41 Pharmacology, Clini	64 Surgery, Pediatric
17 Hypnosis	42 Physical medicine and Rehab.	65 Surgery, Plastic
18 Infectious Disease	43 Psychiatry	66 Surgery, Thoracic
19 Internal Medicine	44 Psychiatry, Child	67 Surgery, Traumatic
20 Laryngology	45 Psychoanalysis	68 Surgery, Urological
21 Legal medicine	46 Psychosomatic medicine	69 Other specialty:
22 Neoplastic diseases	47 Public Health	_____
23 Nephrology		
24 Neurology		

THANK YOU VERY MUCH FOR COMPLETING THIS FORM. PLEASE RETURN IT, IN THE ENVELOPE PROVIDED, WITH YOUR APPLICATION.

APPENDIX B

NOTES ON DATA QUALITY

1. As in all data sets, there are errors in the data due to respondent and processing inaccuracies. We estimate this error rate to be 1 to 2 percent.
2. As is mentioned in the report, this information is based on the approximately 92 percent of physicians who responded to this survey. This means that raw numbers and rates reflect approximately 92 percent of the total physician population. A check of the non-respondent group reveals an age and sex distribution which is not significantly different from the respondent group. Therefore the non-respondent rate should not effect means.
3. Groups with few numbers are subject to inherent tendency to fluctuate more than larger groups. This reader is cautioned to use care in making inferences from data sets with small numbers.

APPENDIX C

BORDER PHYSICIANS

Twenty physicians outside Vermont indicated that Vermonters formed a significant portion (over 5 percent) of their practice. The 20 included 2 Canadian, 8 New Hampshire, 8 Massachusetts, and 2 New York physicians.

Both Canadian physicians practice in Quebec and probably provide care primarily to residents of Essex and Orleans Counties.

One New York physician is located in Salem, opposite the sparsely populated area around Sandgate. The other is located in Albany.

Of the 8 New Hampshire physicians, 6 are located in Hanover, 1 in Concord, and 1 in Lancaster, across the river from southern Essex County.

The Massachusetts physicians are located in Hadley (2), Pittsfield (2), North Adams (2), Franklin, and Williamstown.

APPENDIX D
SPECIALTIES INCLUDED IN SPECIALTY GROUPS

GROUP	INCLUDES
Anesthesiology	Anesthesiology
Emergency Medicine	Emergency Medicine
Family & General Practice	Family Practice General Practice
General Surgery	General Surgery
Other Surgery	Laryngology, Neoplastic Diseases, Otolaryngology, Otorhinolaryngology, Rhinology, Abdominal, Cardiovascular, Colon & Rectal, Hand, Head & Neck, Neurological, Orthopedic, Pediatric, Plastic, Thoracic, Traumatic, and Urological Surgery
Internal Medicine	Internal Medicine
Other Medical	Allergy, Broncho-esophagology, Cardiovascular Diseases, Dermatology, Diabetes, Endocrinology, Gastroenterology, General Preventative Medicine, Geriatrics, Hematology, Infectious Diseases, Nephrology, Pulmonary Diseases, Rheumatology
Obstetrics & Gynecology	Obstetrics, Gynecology, and Obstetrics and Gynecology
Ophthalmology	Ophthalmology
Pathology	Pathology, Clinical Pathology, Forensic Pathology
Pediatrics	Pediatrics, Allergy Pediatrics, Pediatric Cardiology
Psychiatry	Psychiatry, Child Psychiatry, Psychoanalysis
Radiology & Nuclear Medicine	Nuclear Medicine, Radiology, Diagnostic Radiology, Pediatric Radiology, Therapeutic Radiology, Diagnostic Roentgenology
Other or No Specialty	Aerospace Medicine, Hypnosis, Legal Medicine, Neurology, Child Neurology, Nutrition, Occupational Medicine, Clinical Pharmacology, Physical Medicine & Rehabilitation, Psychosomatic Medicine, Public Health, Other

APPENDIX E

PRIMARY CARE PHYSICIANS

Primary care physicians are those physicians who provide routine care, rather than highly specialized treatment. Included in this group are general practitioners, family practice specialists, internists, pediatricians, obstetricians, and gynecologists.

In addition to providing general care, primary care physicians serve to refer patients to specialists. Thus they are, in almost all cases, the entry point for the entire medical system.

It is for this reason that the measure of accessibility of primary care is of particular importance. Since specialists usually require major facilities, they are most often located in population centers. Therefore, it is common to have to travel some distance to see a specialist. While this difficulty is probably unavoidable when seeking treatment by a specialist, the geographic factor should be minimized when seeking access to primary care.

In Vermont, nearly half of the specialists are located in Chittenden County. Over 91 percent of these referral physicians are in the seven largest counties.

While Chittenden County also has both the highest number and highest rate per thousand population of primary care physicians, these physicians are more evenly distributed across the state. If we eliminate physicians providing direct patient care less than 20 hours per week, the coverage patterns become more even.